Title II Project Application
Medford District Resource Advisory Committee

1. Project Number (Assigned by federal unit):__116-417__ AMOUNT REQUESTED: $21,961

2. Project Name: Jackson Creek Fish Passage Enhancement **3. County:** Jackson
4. Project Sponsor: Rogue Valley Council of Governments **5. Date:** April 15, 2003
6. Sponsors Phone # : 541-664-6676 x.211
7. Sponsor's E-mail: charper@rvcog.org
8. Project Location (attach project area map)

a. 4th Field Watershed Name and HUC #(if known): Middle Rogue River: 17100308
b. 5th Field Watershed Name and HUC #(if known): Bear Creek 1710030801
c. Legal Location: approximately 122°56', 42°20'30"
d. Township 37 Range 2W Section 15
d. BLM District: Medford e. BLM Resource Area: Ashland
f. National Forest: Rogue g. Forest Service District: Ashland
h. State / Private / Other lands involved? ☒ Yes ☐ No

9. Statement of Project Goals and Objectives:
The project will improve fish passage accessibility in Jackson Creek through improvements to the Ross Lane culvert (attached map, Fig. 1- "A"), and analysis of alternatives for the Hanley Road culvert (attached map, Fig. 1- "B"). Jackson Creek is an important tributary to Bear Creek and a valuable spawning and rearing stream for summer steelhead in the Middle Rogue sub-basin. Modifications to the Ross Lane culvert will consist of increasing the tailwater at the culvert through construction of a rock weir and alterations of the three barrels of the concrete culvert to concentrate low flows into one barrel and increase the water depth while still allowing the design flood flow to pass through the culvert. The total estimated construction cost for the Ross Lane culvert, including design, construction management, permitting and contract administration, mobilization and contingencies is $22,650. Additional tasks include site monitoring and revegetation of the Ross Lane site, and public outreach and feasibility analysis for the downstream Hanley Road culvert. The cost of these additional tasks is $6,000.

10. Project Description: (Provide concise description of project and attach map.)
The existing drop from the Ross Lane culvert to the water surface just downstream is about 18 inches although it varies by flow. There is an existing scour hole below the culvert that provides adequate depth and may allow passage of adults at some flows, however, the drop is a barrier to juveniles at almost all flow levels. The proposal is to raise the elevation of the water surface at the scour hole about 10 inches by constructing a rock weir at the downstream end of the scour hole where the ripple begins. The weir will allow for concentration of low flows into the center of the stream providing adequate passage depth and also serve to reduce erosion of the banks at high flows while providing excellent energy dissipation and passage at high flows. The backwater depth will be fairly consistent but will rise with higher flows. The weir is designed to use 3-foot diameter angular rocks, which are available as in-kind from Jackson County. The number of rocks required is between 20 and 30. A small excavator is required to excavate, place, and backfill the rocks and create the weir. Jackson County will provide the rocks, and will supply the equipment and operator for excavation and placement of the rocks in the stream. The Jackson Creek Stakeholders Group has agreed to help with volunteer labor in the installation of the rock weir. RVCOG will work with all participants to ensure smooth implementation of the construction and assist with volunteer coordination and communications. RVCOG will also lead the monitoring, permit acquisition, contract management, acquisition, workforce coordination and reporting tasks.

The work inside the culvert still requires some final design and modeling to firm up the actual dimensions and shape of the modifications. The three existing barrels of the culvert are square and have the same invert elevation. The current proposal from the Bureau of Reclamation includes the addition of a short plate about 8-inches in height to the upstream edge of the two outer barrels of the culvert to concentrate low flows into the middle barrel. A slight v-notch will be added to the outlet of the middle barrel by anchor bolting a ? - inch plate to the outlet. This will create depth of flow at the exit. The interior of the middle barrel will be roughed by anchor bolting 4 x 6 x ? - inch angles to the flow in V shapes facing upstream at about 5 foot intervals. An opening in the middle provides a low flow notch in the middle of the barrel. Other variations are possible but the overall cost and effect on flows are similar. The angle iron will trap bedload after the first season creating a more natural contour to the culvert.

No work is anticipated upstream of the culvert and no significant changes are expected in sedimentation patterns or water surface levels. The work will need to be done at low flows probably in the fall of the year. Construction could be accomplished in the spring prior to the start of the higher flows but is more likely to be impacted by high water events or storms. The stream will be diverted around the site of the weir during construction of that portion and through one of the side barrels during modifications to the culvert. Access to the downstream side of the culvert for an excavator will require removal of some brush and small tress and minor earthwork. Minor revegetation will be required. Physical monitoring of the site will be conducted to evaluate the effects of the fish passage enhancement work. Monitoring will include stream depth, channel cross-sections, gravel recruitment, and vegetation condition. Photo points will be established, and all monitoring will be conducted before and repeatedly after construction.

The Ross Lane culvert is approximately ½ mile upstream from the Hanley Road culvert, which is the highest priority for Fish Use/Protection improvement in the Jackson Creek Watershed Action Plan, RVCOG 2001. The Hanley Road culvert has about a 15 to 20- foot drop from the upstream to the downstream side of the culvert, and fixing it will be complicated. The Bureau of Reclamation has begun preliminary design work for the Hanley Road culvert. RVCOG proposes to assist the Bureau and Jackson County with preliminary planning and public outreach to adjacent, downstream landowners, working with the Jackson Creek Stakeholders Group (JCSG). JCSG worked with RVCOG as a sub-committee of the Bear Creek Watershed Council to complete the Jackson Creek Watershed Assessment and Action Plan in 2001. Outreach to landowners downstream of Hanley Road is essential because one option for fish passage improvement at the culvert is to begin building up the streambed 200 feet downstream of the culvert. That way, if the culvert is removed and replaced with a bottomless culvert or bridge, the potential for head-cutting upstream will be minimized or eliminated.

11. Coordination of this project with other related project(s) on adjacent lands?

☒ Yes ☐ No If yes, then describe.

The U.S. Forest Service will be redesigning the water diversion for the J. Herbert Stone Nursery to ensure optimal fish passage. This diversion lies in the stretch of Jackson Creek between the Ross Lane and Hanley Road culverts. As mentioned, the Hanley Road culvert will also be redesigned and modified. Title II projects have been conducted in the upper watershed of Jackson Creek (e.g., reservoir spillway protection), and the Oregon Dept. of Transportation plans to realign and restore a portion of Jackson Creek next to Highway 238 between Hanley Road and the City of Jacksonville. This project will be done in conjunction with the redesign and construction of the Hanley Road/238 intersection. In addition, the Nursery has recently completed a wetland which will be used to treat the runoff from the Nursery irrigation before it enters Jackson Creek. Work had also been completed by

the Forest Service, OSU Cooperative Extension and RVCOG on Jackson Creek within the Nursery grounds to plant riparian trees on approximately ¼ mile of streambank, and just over one acre of land (OWEB grant-funded). Plans are in the works to begin converting irrigation district canals to pipelines, and irrigation practices are becoming more efficient of water use. At the same time, agricultural practices are under greater scrutiny due to Senate Bill 1010 – Ag. Water Quality Management Plans, and as a result water quality should improved in Jackson Creek. All of these efforts and projects are adding to the momentum for the restoration of Jackson Creek.

12. How does the proposed project meet purposes of the Legislation? [Sec. 203(b)(1)]

- ☒ Improves maintenance of existing infrastructure. [Sec. 2(b)]
- ☒ Implements stewardship objectives that enhance forest ecosystems. [Sec. 2(b)]
- ☒ Restores and improves land health. [Sec. 2(b)]
- ☒ Restores water quality. [Sec. 2(b)]

13. Project Type (check one) [Sec. 203(b)(1)]

- ☐ Road Maintenance [Sec. 2(b)(2)(A)]
- ☐ Road Decommission/Obliteration [Sec. 2(b)(2)(A)]
- ☒ Other Infrastructure Maintenance (specify): culvert retrofits [Sec. 2(b)(2)(A)]
- ☐ Soil Productivity Improvement [Sec. 2(b)(2)(B)]
- ☒ Watershed Restoration & Mntc. [Sec. 2(b)(2)(D)]
- ☒ Fish Habitat Restoration [Sec. 2(b)(2)(E)]
- ☒ Reestablish Native Species [Sec. 2(b)(2)(G)]
- ☐ Other Project Type (specify) [Sec. 2(b)(2)]: _____
- ☐ Trail Maintenance [Sec. 2(b)(2)(A)]
- ☐ Trail Obliteration [Sec. 2(b)(2)(A)]
- ☒ Forest Health Improvement [Sec. 2(b)(2)(C)]
- ☒ Wildlife Habitat Restoration [Sec. 2(b)(2)(E)]
- ☐ Control of Noxious Weeds [Sec. 2(b)(2)(F)]

14. Measure of Project Accomplishments/Expected Outcomes [Sec. 203(b)(5)]

a. Total Acres: 9,600 (60% of Jackson Creek watershed) b. Total Miles: 1/2
c. No. Structures: 1 d. Estimated People Reached (for environmental education projects): 100
e. No. of Laborer Days: 50
f. Other (specify): salmonids will eventually have unimpeded access to upper Jackson Creek

15. Duration of Project and Estimated Completion Date [Sec. 203(b)(2)]**:** Design work will resume Summer 2003, construction of Ross Lane culvert will occur in Fall 2003 or Spring 2004, depending on funding availability. Monitoring, planning and outreach will begin as soon as funding is available (Summer 2003), and will continue, along with revegetation, after construction. Estimated completion date 9-30-04. Monitoring will continue as part of later phases (e.g., Hanley Road culvert replacement).

16. Target Species Benefitted: (if applicable) anadromous fish, including summer steelhead and Pacific lamprey, and other fish.

17. How will cooperative relationships among people that use federal lands be improved? [Sec. 2(b)(3)]

RVCOG will work closely with federal agencies (USFS, BOR), community groups such as the Jackson Creek Stakeholders Group and the Bear Creek Watershed Council, local landowners, and Jackson County to ensure a successful project, and to inform the public and local agencies of the connection of this project with the overall health of the Jackson Creek watershed. Stewardship by private citizens in the use of federal lands in the upper Jackson Creek watershed will be increased if more anadromous

fish are able to gain access to the headwaters. If fish populations become healthier and more numerous in Jackson Creek, stewardship will likely increase throughout the watershed because of peoples' love for fish.

18. How is this project in the best public interest? [Sec. 203(b)(7)] **Identify benefits to communities?**
Protection and enhancement of salmonid populations, especially where directly connected to and affected by Federal lands (USFS J. Herbert Stone Nursery and BLM land upstream) will help set an example for stewardship in the Jackson Creek watershed. With the completion of the Jackson Creek Watershed Action Plan, private citizens who were involved with the Plan want to see on-the-ground projects completed. The Ross Lane culvert, although relatively simple to implement, will jump-start restoration projects in the watershed, and will add further impetus to the need for restoration of the Hanley Road culvert.

19. How does project benefit federal lands/resources?
The project will benefit federal lands/ resources by improving accessibility and habitat in the lowland reaches of Jackson Creek, thereby improving conditions for anadromous salmonids and other fish that use Jackson Creek for migration through private, and local, state and Federal agency-managed lands up to the upper watershed, 1,309 acres of which is managed by BLM. The J. Herbert Stone Nursery is 256 acres. People will also learn to value and protect streams and forests, and gain a greater appreciation for natural areas, including federal forest lands and resources.

20. Status of Project Planning

a. NEPA Complete:	☐ Yes	☒ No	
b. If No, give est. date of completion: ___Not applicable_X_			
c. NMFS Sec. 7 ESA Consultation Complete:	☐ Yes	☒ No	☐ Not Applicable
d. USFWS Sec. 7 ESA Consultation Complete:	☐ Yes	☒ No	☐ Not Applicable
e. Survey & Manage Complete:	☐ Yes	☒ No	☐ Not Applicable
f. DSL/ODFW* Permits Obtained:	☐ Yes	☒ No	☐ Not Applicable
g. DLS/COE* 404 Fill/Removal Permit Obtained:	☐ Yes	☒ No	☐ Not Applicable
h. SHPO* Concurrence Received:	☐ Yes	☒ No	☐ Not Applicable
i. Project Design(s) Completed:	☐ Yes	☒ No	

* DSL = Dept. of State Lands, ODFW = Oregon Dept. of Fish and Wildlife, COE = Army Corps of Engineers, SHPO = State Historic Preservation Officer

21. Proposed Method(s) of Accomplishment

- ☒ Contract (RVCOG)
- ☒ Federal Workforce (USFS, BOR)
- ☒ County Workforce (Roads and Parks)
- ☒ Volunteers (Jackson Creek Stakeholders)
- ☐ Other (specify): _____

22. Will the Project Generate Merchantable Materials? (Sec. 204(e)(3))

☐ Yes ☒ No

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23. Anticipated Project Costs [Sec. 203(b)(3)]

a. Total County Title II Funds Requested: $21,961

b. Is this a multi-year funding request? ☐ Yes ☒ No If yes, then display by fiscal year

c. FY04 Request: $21,961

Item	Fed. Agency Appropriated Contribution [Sec. 203(b)(4)]	Requested County Title II Contribution [Sec. 203(b)(4)]	Other Contributions [Sec. 203(b)(4)]	Total Available Funds
24. Field Work & Site Surveys		3,000		3,000
25. NEPA & Sec.7 ESA Consultation		650	500	1,150
26. Permit Acquisition		1,500	1,500	3,000
27. Project Design & Engineering		2,000	7,000	9,000
28. Contract Preparation		300		300
29. Contract Administration (10% to BLM)		1,815		1,815
30. Contract Cost		700		700
31. Workforce Cost		2,000	4,680	6,680
32. Materials & Supplies		2,500	2,000	4,500
33. Monitoring		3,500		3,500
34. Other		2,000		2,000
35. Project Subtotal		19,965	15,680	35,645
36. Indirect Costs (Overhead) (per year for multiple year projects)		1,996		2,795
37. Total Cost Estimate		**21,961**	**15,680**	**37,641**

38. Identify Source(s) of Other Funding in Column C. Above [Sec. 203(b)(4)]

Bureau of Reclamation	$8,000
Jackson County	$3,000
U.S. Forest Service (proposed)	$3,000
Volunteers (Jackson Cr. Stakeholders)	$1,680

39. Monitoring Plan (Sec.203(b)(6)

a. **What measures or evaluations will be made to determine how well the proposed project meets the desired ecological conditions?** [Sec. 203(b)(6)] **Who will be responsible for this monitoring item?** RVCOG will establish photo points and take before and after (repeated) shots of the Ross Lane culvert. RVCOG will conduct physical monitoring of the site to evaluate the effects of the fish passage enhancement work. Monitoring will include stream depth, channel cross-sections, gravel recruitment, and vegetation condition. RVCOG will also work with the USFS and BOR to collect information on the Hanley Road site, and the reach of Jackson Creek between the two culverts, and downstream of Hanley Road.

b. **How will the project be evaluated to determine how well the proposed project contributes towards local employment and/or training opportunities, including summer youth jobs programs such as the Youth Conservation Corps?** [Sec. 203(b)(6)] **Who will be responsible for this monitoring item?** RVCOG will work with the NRYCC and REALCorps to see how they could be involved in the project, especially maintenance of the vegetation.

c. **What methods and measures of evaluation will be established to determine how well the proposed project improves the use of, or added value to, any products removed from National Forest System lands consistent with the purposes of this Act?** [Sec. 203(b)(6) and Sec. 204(e)(3)] **Who will be responsible for this monitoring item?** RVCOG will coordinate with the federal and state agencies to monitor fish passage success, and will analyze information on fish returns to help gauge the success of the project.

d. Identify total funding needed to carry out specified monitoring tasks (Table 1, Item 33)

Amount: $3,500

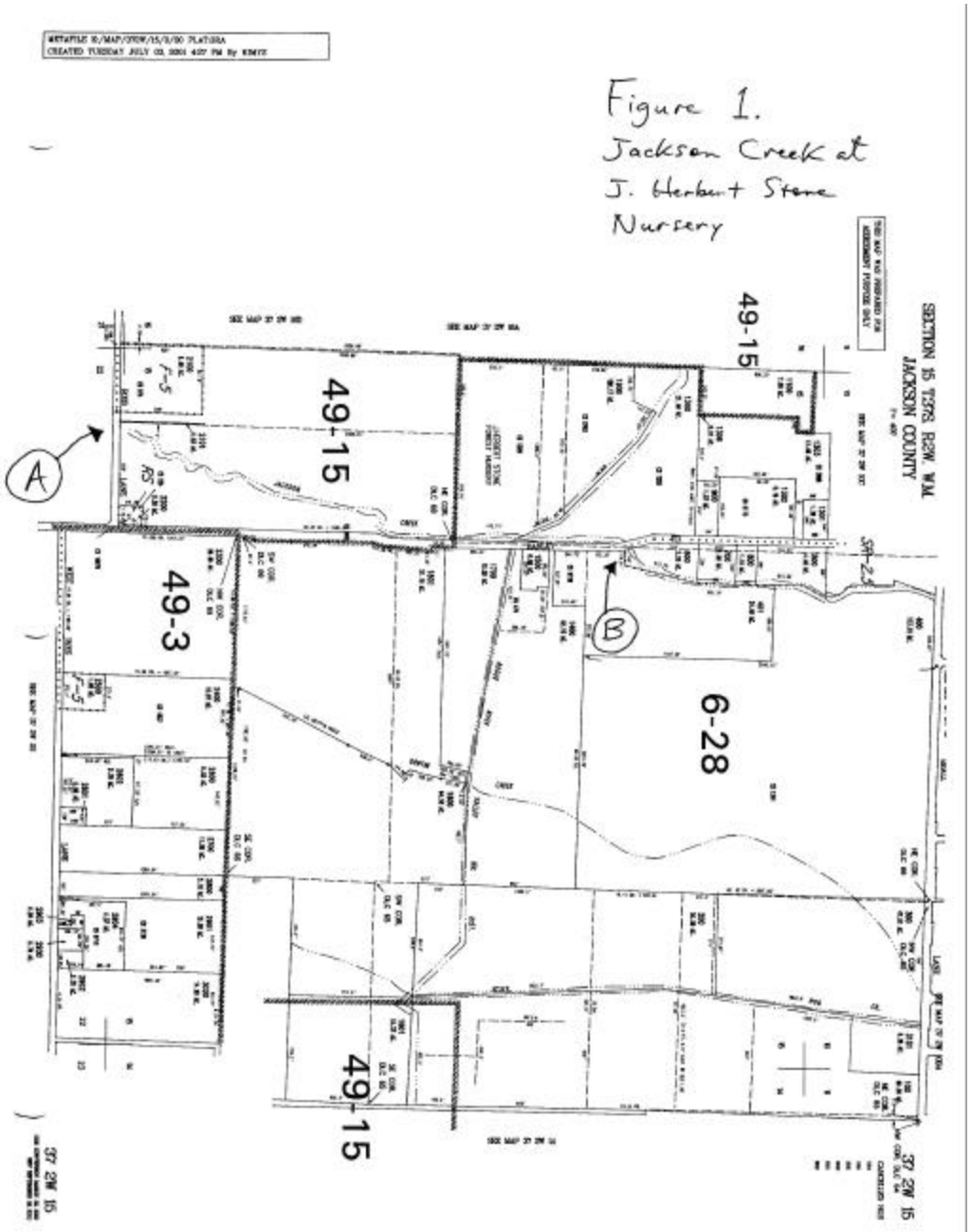
Figure 1.
Jackson Creek at
J. Herbert Stone
Nursery
49-15
49-15
49-3
6-28
49-15
A
B
SECTION 15 T37S R2W W.M.
JACKSON COUNTY
37 2W 15
37 2W 15